CLAIMS CURRENTLY IN THE CASE

Please cancel Claims 17-26, without prejudice.

Please add new Claims 28-37, as follows.

1. (Previously Amended) A method of facilitating circuit design, said method comprising:

a) causing to be displayed information related to a module of a plurality of available modules, said module representing a function implementable in resources available to implement a circuit, said display performed in response to said module being selected; and

b) determining a valid position for said module in a graphical user interface, said graphical user interface having a plurality of resource icons representing said resources, said valid position based on characteristics of said module and characteristics of said resources, said determination made in response to a request for said valid position for said module in said graphical user interface.

2. (Previously Amended) The method of Claim 1, further comprising:

c) generating at least two elements selected from the group consisting of: an application programming interface (API) for programming an operation of said module, source code for realizing said module in said resources, an interrupt vector table having a call to an interrupt service routine for said module, and a data sheet for a circuit comprising said selected modules as positioned in said graphical user interface.

3. (Original) The method of Claim 1, further comprising:

c) determining a new valid position for said module in said graphical user interface, said determination in response to a request for a new position for said module.

4. (Original) The method of Claim 3, wherein c) comprises:

c1) receiving a request for said new valid position for said module;

c2) determining said new valid position for said module in said graphical user interface, based on characteristics of said module and characteristics of said resources; and

c3) highlighting at least one of said resource icons on said graphical user interface to indicate said new valid position.

5. (Original) The method of Claim 1, further comprising:

c) determining positions for a plurality of modules in said graphical user interface, in response to requests for positions for said plurality of modules; and

d) displaying a graphical user interface to facilitate configuring interconnections between said resource icons.

6. (Original) The method of Claim 1, wherein b) comprises:

b1) receiving a request for said valid position for said module in said graphical user interface;

b2) determining said valid position, based on a description of said module and a description of said resources; and

b3) highlighting at least one of said resource icons on said graphical user interface to indicate said valid position.

7. (Original) The method of Claim 1, wherein a) comprises displaying a datasheet for said module.

8. (Original) The method of Claim 7, further comprising:

c) causing to be displayed a plurality of graphical icons identifying sections of said datasheet to be displayed; and

d) displaying a section of said datasheet in response to one of said graphical icons being selected.

9. (Original) The method of Claim 1, wherein a) comprises displaying a circuit schematic for said module.

10. (Previously Amended) A computer readable medium having stored thereon program instructions for implementing a method for assisting circuit designing, said method comprising:

a) determining valid positions in a graphical user interface for selected modules to be placed in said graphical user interface, said graphical user interface describing resources operable to implement said selected modules, said valid positions based on characteristics of said selected modules and characteristics of said resources; and

b) generating at least two elements selected from the group consisting of: an application programming interface (API) for programming an operation of a first

of said selected modules, source code for realizing said selected modules in said resources, an interrupt vector table having a call to an interrupt service routine for a first of said selected modules, and a data sheet for a circuit comprising said selected modules as positioned in said graphical user interface.

11. (Original) The computer readable medium of Claim 10, wherein said method further comprises:

c) causing to be displayed information related to said first of said selected modules in response to said first of said selected modules being selected to be used in said circuit.

12. (Original) The computer readable medium of Claim 10, wherein said method further comprises:

d) determining a new valid position for said first of said selected modules in said graphical user interface, said determination in response to a request for said new valid position for said first of said selected modules.

13. (Original) The computer readable medium of Claim 12, wherein d) of said method comprises:

d1) receiving a request for said new valid position for said first of said selected modules;

d2) determining said new valid position for said first of said selected modules in said graphical user interface, based on an Extensible Markup Language (XML) description of said first of said selected modules and an XML description of said resources; and

d3) highlighting at least one resource icon on said graphical user interface to indicate said new valid position, said resource icon representing one of said resources.

14. (Original) The computer readable medium of Claim 10, wherein said method further comprises:

c) displaying a graphical user interface to facilitate configuring interconnections between said resources operable to implement said selected modules.

15. (Original) The computer readable medium of Claim 10, wherein a) of said method comprises:

a1) receiving a request for a valid position for said first of said selected modules;

a2) determining said valid position, based on an Extensible Markup Language (XML) description of said first of said selected modules and an XML description of said resources; and

a3) highlighting at least one resource icon on said graphical user interface to indicate said valid position, said resource icon representing one of said resources operable to implement said selected modules.

16. (Original) The computer readable medium of Claim 10, wherein said resources comprises a plurality of classes and at least one of said modules maps to a plurality of said classes; and wherein a) comprises:

a1) receiving a request for a first of said valid positions for said first of said selected modules, said request for a first class of said plurality of classes of resources;

a2) determining said first of said valid positions, based on an Extensible Markup Language (XML) description of said first of said selected modules and an XML description of said first class of said plurality of classes of resources; and

a3) highlighting at least one resource icon on said graphical user interface to indicate said valid position, said resource icon representing a resource in said first class of said plurality of classes of resources.

17-26. (Cancelled) (without prejudice)

27. (Previously Added) The method of Claim 1, wherein said valid position is represented by at least one of said resource icons.

28. (New) A method of facilitating circuit design, said method comprising:

a) displaying a graphical user interface (GUI) comprising resource icons representing resources available to implement a circuit in a device;

b) displaying information related to a module of a plurality of modules, said module representing a function implementable in said resources, said displaying information performed in response to said module being selected;

c) determining a valid position for said module in said GUI reflecting a valid position for said function in said device; and

d) displaying said valid position for said module in said GUI, wherein circuit design is facilitated.

29. (New) The method of Claim 28, wherein said method further comprises:

e) generating at least two elements selected from the group consisting of: an application programming interface (API) for causing said first module to perform an operation, source code for realizing said modules that comprise said circuit in said resources, an interrupt vector table having a call to an interrupt service routine for said first module, and a data sheet for said circuit.

30. (New) The method of Claim 28, further comprising:

e) determining a new valid position for said module in said GUI, said determination in response to a request for a new position for said module.

31. (New) The method of Claim 30, wherein e) comprises:

e1) receiving a request for said new valid position for said module;

e2) determining said new valid position for said module in GUI, based on characteristics of said module and characteristics of said resources; and

e3) highlighting at least one of said resource icons on said GUI to indicate said new valid position.

32. (New) The method of Claim 28, further comprising:

e) determining positions for a plurality of modules in said GUI, in response to requests for positions for said plurality of modules; and

f) displaying a GUI to facilitate configuring interconnections between said resource icons.

33. (New) The method of Claim 28, wherein said c) comprises computing said valid position for said module based on an Extensible Markup Language (XML) description of said module and an XML description of said resources.

34. (New) The method of Claim 28, further comprising:

e) causing to be displayed a selectable display of available module parameters in response to a request for said available module parameters for said module, said selectable display based on characteristics of said module.

35. (New) The method of Claim 28, wherein said b) comprises displaying a Hypertext Markup Language (HTML) datasheet for said module.

36. (New) The method of Claim 35, further comprising:

e) displaying a section of said datasheet in response to a graphical icon being selected, said datasheet having a plurality of graphical icons identifying sections of said datasheet to be displayed.

37. (New) The method of Claim 28, wherein said b) comprises displaying a circuit schematic for said module.